

Marchés financiers de l'eau

Water trading

Mercados financieros del agua



I expect to see in the near future a massive expansion of **investment in the water sector**, including the production of fresh, clean water from other sources (desalination, purification), **storage, shipping and transportation of water**. I expect to see **pipeline networks** that will exceed the capacity of those for oil and gas today.



Willem Buiter, Chief
Economist at Citigroup

I expect to see a **globally integrated market for fresh water** within 25 to 30 years. Once the spot markets for water are integrated, **futures markets and other derivative water-based financial instruments** (...) will follow (...) Water as an asset class will, in my view, become eventually the **single most important physical-commodity based asset class**, dwarfing oil, copper, agricultural commodities and precious metals.



Willem Buiter, Chief
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Why a global water commodities market

- Speculation with food
- Push for nature commodification
- Predictions of increasing number of “water-stressed” people
- Water becoming essential to an increasing number of industries (hydroelectric power, nuclear, fracking...)



Market based mechanisms applied to water



- **Instruments that use existing markets**
 - Modify the price of goods and services
 - Water pricing, taxes to pollution, subsidies...

Market based mechanisms applied to water



- **Instruments creating new markets**
 - Create new institutional and regulatory frameworks.
 - Water markets, pollution markets...

Market based mechanisms applied to water



- **Economic instruments based on voluntary agreements**
 - Public voluntary schemes (eco-labelling, etc)
 - Payment for environmental services...

What is a water market?

- Any institutional framework that allows two users to exchange water or water rights, voluntarily agreeing the conditions of the exchange.



Different water markets

- **Agricultural water markets:**
 - First markets to emerge.
 - The most common.
 - Water transferred to higher-value crops, more intensive agricultural systems..



Different water markets

- **Inter-sector** water markets:
 - Between users in different sectors.
 - To increase water supply for urban areas in dry periods (USA, Spain), public purchases for environmental uses (Australia), from agriculture to energy.

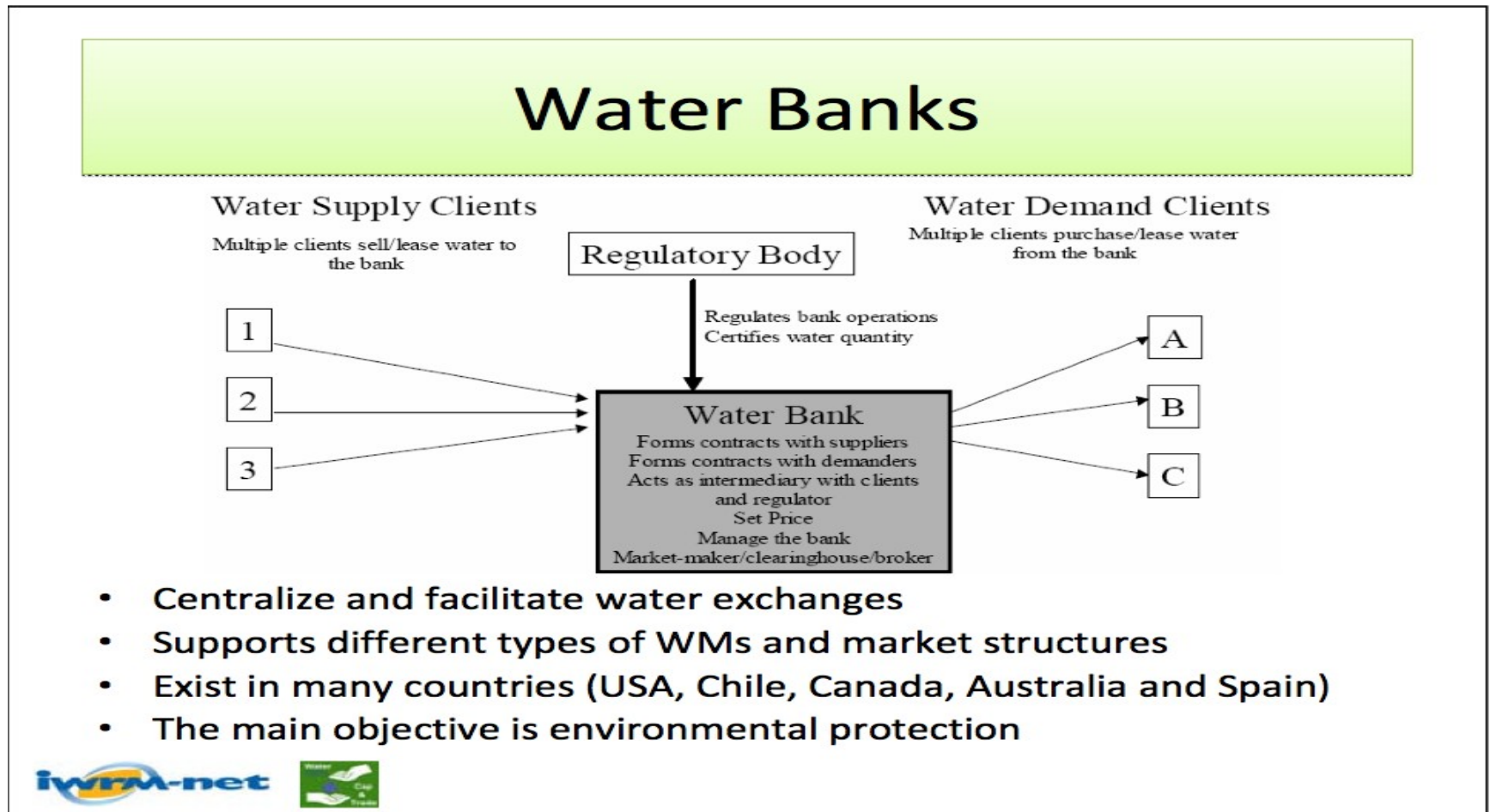


Different water markets

- Inter-basin water trading



Water banks



Water markets in the EU?



- Type of water market scenarios that could be proposed for Southern Europe
- Potential for water re-allocation through market mechanisms. Expected socio-economic impact
- Water market scenarios socially acceptable? And which institutional mechanisms for enhancing acceptability?

• Order of magnitude of transaction costs. How do they compare with expected economic benefits

• What can be learned from the Spanish experience with water markets?

Why water markets?

European workshop

Water markets

A response to water scarcity
and drought in Europe?

Paris, February 10th, 2014



A workshop
organised by :



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Potential advantages

What are the advantages of WMs?

- Increases efficiency in water allocation
- Flexible water allocation mechanism
- Disseminates information about the real value of water
- Stimulates water saving
- Lower cost alternative to developing new water supply
- Reduces water supply risks and uncertainty
- Can be adapted to different institutional frameworks to satisfy different water policy needs



Potential disadvantages

What are the disadvantages?

- Can increase pressure on water resources
- Can mobilise unused rights
- Can result in inefficient allocations due to:
 - Poorly defined water rights
 - Thinness: reduced activity/price dispersion.
 - Market power / Speculative behaviour
 - The stochastic nature of water availability
 - Transaction costs
 - External effects
- This is affected by the type of water market, water rights and regulatory framework



Potential disadvantages

Potential externalities

- Problems of very different nature and highly dependant on:
 - The spatial and sector extent of water trading
 - The existence of property rights
 - The type of water market
- Impact on return flows and their users
- Social effects (employment, equity, traditional irrigation)
- Environmental effects (river flows, salinity, pollution)
- Solutions: clear definition of property rights, public control, restrictions to trading, systems for conflict resolution, compensation schemes, cooperation



Conditions for a market to work properly

- ✓ Clearly defined property rights, exclusive and untransferable.
- ✓ Means of transporting goods to buyers
- ✓ Complete information for sellers and buyers
- ✓ Low transaction costs
- ✓ Buyers and sellers need to be abundant enough so as to avoid monopoly control of the resource

Problems of water markets

- Whoever **can pay most for water will have the use**. No public debate, no environmental review.
- Under a market allocation system, **who gets water and who gets to use** the state's public water projects would be determined by access to capital, **not the public interest**.

